

Complementary DNA (cDNA)

A single-stranded DNA that is complementary to a strand of mRNA. The DNA is synthesized *in vitro* by an enzyme known as reverse transcriptase. Then, a second DNA strand is synthesized via the enzyme known as DNA polymerase.

Complementary DNA is often utilized in hybridization studies and in microarrays (e.g., to detect/identify genes) because cDNAs usually don't contain regulatory sequences of DNA; since the cDNA was copied from mRNA. cDNA is a DNA copy of mRNA (messenger RNA) and this "rebukes" the (old) Central Dogma.

DEOXYRIBONUCLEIC ACID (DNA), MESSENGER RNA (mRNA), CENTRAL DOGMA (OLD), ENZYME, DNA POLYMERASE, HYBRIDIZATION (MOLECULAR GENETICS), MICROARRAY (TESTING), GENE EXPRESSION ANALYSIS, REGULATORY SEQUENCE

The term "Complementary DNA (cDNA)" also appears in the definition(s) of the following term(s):

DNA Microarray

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